

ABSTRACT OF SANITARY REPORTS.

VOL. VIII.

WASHINGTON, D. C., JUNE 30, 1893.

No. 26.

TREASURY DEPARTMENT, U. S. Marine-Hospital Service.—Published in accordance with act of Congress approved February 15, 1893.

UNITED STATES.

Circular.—Quarantine regulations.

TREASURY DEPARTMENT,
OFFICE OF THE SECRETARY,
Washington, D. C., June 15, 1893.

To Officers of the Treasury Department, Consular Officers, and others whom it may concern:

You are hereby informed that the quarantine regulations of the Treasury Department approved by the Secretary of the Treasury February 24, 1893, and April 4, 1893, with subsequent circular additions and amendments, supersede all circular quarantine regulations previously issued; and all quarantine circulars issued prior to the dates of approval of said regulations are hereby revoked.

Collectors of customs, in enforcing the provisions of the quarantine laws and regulations denying entry to vessels, or detaining the same, are directed to report immediately by telegraph to the Supervising Surgeon-General of the Marine-Hospital Service the reasons therefor, and other necessary information.

While the quarantine rules can not be relaxed, no unnecessary detention or delay to vessels should be caused in enforcing the same, as it is the purpose of the Department to facilitate commerce in every proper way consistent with the public safety.

J. G. CARLISLE,
Secretary.

SPECIAL REPORTS.

Yellow fever near Brunswick, Ga.—Infected vessel sent to South Atlantic Quarantine Station.

[*Telegram.*]

BRUNSWICK, GA., *June 27, 1893.*

Captain of bark *Anita Berwind* died of yellow fever on Satilla River near this place. Cook now sick. Vessel en route to Sapelo quarantine. Twenty-five laborers have been loading vessel. Will you wire me authority to send them to Sapelo for detention and observation?

J. A. DUNWOODY,
Health Officer.

To the SUPERVISING SURGEON-GENERAL M. H. S.

[Telegram.]

WASHINGTON, D. C., June 28, 1893.

Authorized to transfer 25 laborers to Sapelo. Surg. Carter reaches Savannah Thursday morning; goes through to Satilla immediately. Pending his arrival enforce all necessary quarantine restrictions to prevent spread of disease. Your compensation increased while on extra duty. Wire daily the situation.

WYMAN,
Surgeon-General.

To Dr. J. A. DUNWOODY, Brunswick, Ga.

[Telegram.]

WASHINGTON, D. C., June 28, 1893.

Wire all facts concerning *Berwind*. Where was she from; did she enter at Brunswick; and was she inspected? Give date of entry and date of captain's death. Where is the sick cook, and when did vessel leave for Sapelo?

WYMAN,
Supervising Surgeon-General M. H. S.

To Dr. J. A. DUNWOODY.

[Telegram.]

BRUNSWICK, GA., June 28, 1893.

Berwind entered Havana on May 19; unloaded in open bay; no one ashore but the captain. Sailed June 9; arrived here 15th; all well while in Havana, during voyage, and upon arrival here. No ballast. Discharged from our quarantine on June 19 after being fumigated; was towed to Satilla same day; master taken sick on June 21; next day transferred to camp 8 miles in country on Satilla. Died on 25th; vessel with sick cook will arrive at Sapelo this afternoon.

J. A. DUNWOODY,
Health Officer.

To the SUPERVISING SURGEON-GENERAL M. H. S.

[Telegram.]

SAVANNAH, June 28, 1893.

Will go to-night by my tug, authorities with me, to assist Carter, if you wish. Answer.

W. H. BRUNNER,
Health Officer.

To the SUPERVISING SURGEON-GENERAL M. H. S.

[Telegram.]

WASHINGTON, June 28, 1893.

Glad to have your coöperation.

WYMAN,
Supervising Surgeon-General M. H. S.

Dr. W. H. BRUNNER,
Savannah, Ga.

In accordance with the following orders, Surg. H. R. Carter left for Satilla on June 28, 1893:

OFFICE OF THE SUPERVISING SURGEON-GENERAL,
U. S. MARINE HOSPITAL SERVICE,
Washington, D. C., June 28, 1893.

SIR: You are directed to proceed as expeditiously as possible to a point on the Satilla River, near Brunswick, Ga., and to there take all necessary precautions to prevent the spread of yellow fever. Acting Assistant Surgeon Dunwoody, of Brunswick, has been directed to take charge of measures pending your arrival. You are authorized to employ guards and nurses, and, if necessary, one or more physicians, and you will communicate by telegraph, if possible, daily, the situation. You may confer with Dr. W. H. Brunner, secretary of the sanitary board of Savannah, Ga., who has been notified of your arrival at Savannah, at 7 a. m. Thursday morning, en route to Brunswick.

Respectfully yours,

WALTER WYMAN,
Supervising Surgeon-General M. H. S.

Surg. H. R. CARTER,
U. S. Marine-Hospital Service, Washington, D. C.

[Telegram.]

BRUNSWICK, GA., June 29, 1893.
Laborers from *Berwind* en route for Sapelo. Carter just left for Satilla.
J. A. DUNWOODY.

To the SUPERVISING SURGEON-GENERAL M. H. S.

[Telegram.]

BRUNSWICK, GA., June 29, 1893.
Dunwoody at Satilla. I will reach Satilla to-night.

H. R. CARTER,
Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

Arrival of barkentine Icarus at Gulf Quarantine.

GULF QUARANTINE, June 26, 1893.

SIR: I have the honor to report the arrival here to-day of the British barkentine *Icarus*, six days from Havana. Four of the crew were treated for yellow fever at port of departure. Three returned to the vessel, while one was left in hospital. On arrival all were fairly well. Every precaution will be taken to render the vessel safe.

Very respectfully,

G. M. GUITÉRAS,
Passed Assistant Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

Arrival at Sault Ste. Marie, of immigrants landed at Halifax.

SAULT STE. MARIE, MICH., June 21, 1893.

SIR: Sixty-six immigrants arrived at this port to-day, having landed at Halifax from steamer *Assyrian*. They brought certificates that their

b baggage had been disinfected by sulphur signed by United States Consul George Hill, and as they had been fourteen days since embarking at Liverpool and are all healthy at present, I allowed them to pass.

I have the honor to be, respectfully,

H. R. FLOYD,
Acting Assistant Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

Report of immigration at New York for the two weeks ended June 24, 1893.

OFFICE OF U. S. COMMISSIONER OF IMMIGRATION,
Port of New York, June 28, 1893.

*Number of alien immigrants who arrived at this port during the two weeks ended June 24, 1893,
also names of vessels and ports from which they arrived.*

Date.	Vessel.	Where from—	Total.
1893.			
June 11	Steamship La Champagne.....	Havre.....	258
11	Steamship Schiedam.....	Amsterdam.....	740
12	Steamship Aurania.....	Liverpool and Queenstown.....	636
12	Steamship Amerika.....	Copenhagen, Christiania, etc.....	757
12	Steamship Amsterdam.....	Rotterdam	525
13	Steamship Saale.....	Bremen and Southampton.....	597
13	Steamship Massilia.....	Naples.....	1,070
13	Steamship State of Nebraska.....	Glasgow and Londonderry	443
13	Steamship Arizona.....	Liverpool and Queenstown.....	453
13	Steamship Ethiopia.....	Glasgow and Moville.....	348
14	Steamship Vega.....	Lisbon and the Azores.....	273
14	Steamship Stuttgart.....	Bremen	1,279
14	Steamship Spaarndam.....	Rotterdam and Boulogne.....	628
15	Steamship Spree.....	Bremen	433
15	Steamship Waesland.....	Antwerp.....	567
16	Steamship Giava	Naples.....	322
16	Steamship Alsatia.....	do.....	842
16	Steamship Normania.....	Hamburg.....	203
16	Steamship Gulf of Mexico.....	Bremen	254
16	Steamship Edam.....	Rotterdam.....	421
17	Steamship Solinger.....	Hamburg.....	176
17	Steamship Adriatic.....	Liverpool and Queenstown.....	695
17	Steamship La Touraine.....	Havre.....	350
17	Steamship Taormina.....	Hamburg.....	220
17	Steamship Gellert.....	do.....	470
18	Steamship Anchoria.....	Glasgow and Moville	268
18	Steamship Belgenland.....	Antwerp.....	411
18	Steamship Etruria.....	Liverpool and Queenstown.....	554
19	Steamship Russia	Hamburg and Havre	27
20	Steamship Trave	Bremen and Southampton	685
20	Steamship Chester.....	Southampton.....	256
20	Steamship Didam.....	Rotterdam.....	494
20	Steamship Chandemagor.....	Naples.....	580
20	Steamship Italia.....	do.....	302
20	Steamship Friesland.....	Antwerp.....	779
21	Steamship Italia.....	Helsingborg, Gothenberg, and Christiansand.....	673
21	Steamship Peruvian.....	Glasgow and Londonderry	297
21	Steamship H. H. Meier.....	Bremen.....	1,335
22	Steamship Teutonic.....	Liverpool and Queenstown.....	758
22	Steamship Maskelyne.....	Rio de Janeiro.....	14
23	Steamship Fuerst Bismarck.....	Hamburg and Southampton.....	402
23	Steamship Steinhoff.....	Hamburg.....	158
23	Steamship Werkendam.....	Rotterdam	707
23	Steamship Island.....	Copenhagen, etc.....	697
23	Steamship Aller.....	Bremen and Southampton	638
24	Steamship Campania.....	Liverpool and Queenstown.....	598
24	Steamship Paris.....	Southampton	267
24	Steamship Dania.....	Hamburg.....	584
24	Steamship City of Rome.....	Glasgow and Moville.....	447
	Total.....		24,991

DR. J. H. SENNER,
Commissioner of Immigration.

To the SUPERVISING SURGEON-GENERAL M. H. S.

Promulgation of foreign quarantine regulations—Continued.

Official notification has been received that the quarantine regulations made by the Secretary of the Treasury have been posted in the offices of the United States consuls at the following named ports for ten days Auckland, New Zealand; Bagdad, Melbourne, Mozambique, Newcastle, and Sydney, N. S. W.

VESSELS REMAINING, ARRIVING AT, AND DEPARTING FROM UNITED STATES QUARANTINE STATIONS.

CAPE CHARLES QUARANTINE.

Week ended June 24, 1893.

Three vessels inspected and passed.
Nine vessels spoken and passed.

DELAWARE BREAKWATER QUARANTINE.

Week ended June 24, 1893.

Name of vessel.	Date of arrival.	Where from.	Destina-tion.	Treatment of vessel and cargo.	Date of dep'ture.
Am. sch. Albertine Adoue.....	June 21	Cienfuegos..	Awaiting orders.	Held for disinfection.	

Eighteen vessels inspected and passed.

GULF QUARANTINE.

Week ended June 22, 1893.

Name of vessel.	Date of arrival.	Where from.	Destina-tion.	Treatment of vessel and cargo.	Date of dep'ture.
British ship Canute*	June 4	Santos.....	Mobile.....	Disinfected.....	June 22
Am. sch. Richard S. Spofford*.	June 9	Havana.....	do.....	do.....	June 17
Swedish bark Dorothy*	June 10	Santos.....	do.....	do.....	June 20
British bark Abana.....	June 17	Rio	Ship Island.	Held for disinfection,	
British bark British America...	June 19	Matanzas.....	do.....	do.....	

* Previously reported.

PORT TOWNSEND QUARANTINE.

Week ended June 17, 1893.

Three vessels inspected and passed.

SAN DIEGO QUARANTINE.

Week ended June 21, 1893.

Three vessels inspected and passed.

Reports of States and yearly and monthly reports of cities.

ILLINOIS—Chicago.—Month of May, 1893. Estimated population, 1,575,000. Total deaths 2,403, including phthisis pulmonalis, 253; enteric fever, 56; scarlet fever, 25; diphtheria, 76; croup, 38; measles, 43; and whooping cough, 18.

IOWA.—Month of April, 1893. From the Monthly Bulletin for May the following mortuary reports are extracted:

Burlington.—No report.

Cedar Rapids.—No report.

Clinton.—Consumption, 1; scarlet fever, 1; measles, 5; meningitis, 1. Total deaths, 16. Population, 22,000. Death rate per 1,000, 0.72.

Council Bluffs.—Consumption, 5; pneumonia, 2; membranous croup, 1; meningitis, 1; malarial fever, 1. Total deaths, 27. Population, estimated, 35,000. Death rate per 1,000, 0.74.

Davenport.—Diphtheria, 1; consumption, 8; puerperal fever, 1. Total deaths, 41. Population, estimated, 35,000. Death rate per 1,000, 1.1.

Des Moines.—Consumption, 4; pneumonia, 13; diphtheria, 11; membranous croup, 1; scarlet fever, 1; measles, 3; typhoid fever, 1; remittent fever, 1; meningitis, 1. Total deaths, 72. Population, 70,000. Death rate per 1,000, 1.02.

Dubuque.—Scarlet fever, 1; meningitis, 1. Total deaths, 7. Population, estimated, 40,000. Death rate per 1,000, 0.82.

Fort Dodge. Consumption, 1; malarial fever, 1. Total deaths, 5. Population, 6,000. Death rate per 1,000, 0.8.

Keokuk.—Consumption, 1; pneumonia, 1; la grippe, 1; meningitis, 1. Total deaths, 14. Population, estimated, 20,000. Death rate per 1,000, 0.7.

Muscatine.—Consumption, 1; pneumonia, 2; puerperal fever, 1. Total deaths, 9. Population, 13,000. Death rate per 1,000, 0.6.

Oskaloosa.—Consumption, 3. Total deaths, 8. Population, 8,000. Death rate per 1,000, 1.

Ottumwa.—Consumption, 3; typhoid fever, 1. Total deaths, 24. Death rate per 1,000, 1.3.

Sioux City.—No report.

MAINE—Portland.—Four weeks ended May 20, 1893. Estimated population, 40,000. Total deaths, 64, including 7 from phthisis pulmonalis.

Four weeks ended June 17, 1893. Total deaths, 49, including phthisis pulmonalis, 11.

MICHIGAN.—Week ended June 17, 1893. Reports to the State board of health, Lansing, from 66 observers, indicate that pneumonia, erysipelas, and intermittent fever increased, and that inflammation of bowels decreased in area of prevalence. Diphtheria was reported present during the week at 34 places; scarlet fever at 38; measles at 21; and enteric fever at 16 places.

NEW HAMPSHIRE—Manchester.—Month of May, 1893. Population, 48,500. Total deaths, 62, including phthisis pulmonalis, 4; enteric fever, 3; scarlet fever, 1; and croup, 1.

NEW JERSEY—Hudson County.—Month of April, 1893. Population, 301,298. Total deaths, 599, including phthisis pulmonalis, 52; enteric fever, 7; scarlet fever, 6; smallpox, 2; diphtheria, 12; and whooping cough, 7.

RHODE ISLAND.—Reports to the State board of health from 23 cities and towns, having an aggregate population of 323,418, show a total of 525 deaths, including phthisis pulmonalis, 53; enteric fever, 4; scarlet fever, 19; diphtheria, 10; and measles, 15.

UTAH—*Salt Lake City*.—Month of April, 1893. Estimated population, 70,000. Total deaths, 51, including phthisis pulmonalis, 7; scarlet fever, 3; and diphtheria, 1.

Month of May 1893. Total deaths, 63, including phthisis pulmonalis, 2; enteric fever, 1; scarlet fever, 4; and diphtheria, 2.

Publications received.

Report of the Medical Commission sent to Benghazi by the Government of Malta.

Annual Report of the Board of Health of Taunton, Mass., 1892.

MORTALITY TABLE, CITIES OF THE UNITED STATES.

Cities.	Week ended.	Population, U. S. Census of 1890.	Deaths from—										
			Total deaths from all causes.	Phthisis pul- monalis.	Smallpox.	Varioloid.	Cholera.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.	Whooping cough.
Auburn, N. Y.	June 17....	25,858	8	2									
Baltimore, Md.	June 24....	434,439	212	26							4	2	1
Binghamton, N. Y.	June 24....	35,005	11	1									
Boston, Mass.	June 24....	448,477	160	29							6	3	
Brooklyn, N. Y.	June 17....	806,343	306	47							6	5	1
Chicago, Ill.	June 24....	1,099,850	471	41							14	9	15
Cincinnati, Ohio	June 23....	296,908	109	12							2	4	8
Detroit, Mich.	June 24....	205,876	71								1	1	
Fall River, Mass.	June 24....	74,398	23	3							1	1	
Galveston, Tex.	June 10....	29,084	14	1									
Indianapolis, Ind.	June 24....	105,436	44	6							1	2	
Louisville, Ky.	June 24....	161,129	81	5							1	1	
Milwaukee, Wis.	June 24....	204,468	75	4							2	3	5
Minneapolis, Minn.	June 24....	164,738	51	3							1	1	1
Nashville, Tenn.	June 24....	76,306	41	7							1	2	
New Orleans, La.	June 17....	242,039	129	19							1	1	1
New York, N. Y.	June 24....	1,515,301	880	95	3			3	6	16	34	14	12
Pensacola, Fla.	June 17....	11,750	2										
Philadelphia, Pa.	June 17....	1,046,964	397	55	1						11	8	16
Pittsburg, Pa.	June 17....	238,617	96	10							5	3	2
Portland, Me.	June 24....	36,426	8								1		2
Providence, R. I.	June 24....	148,944	55								3	2	1
Richmond, Va.	June 17....	81,388	39	3							2	1	1
Rochester, N. Y.	June 24....	133,896	55	6							1	1	
San Diego, Cal.	June 17....	16,159	1										
San Francisco, Cal.	June 17....	298,997	79	9							4	1	1
Washington, D. C.	June 17....	230,392	136	10							4	1	6

Table of temperature and rainfall, week ended June 26, 1898.

[Received from Department of Agriculture, Weather Bureau.]

Locality.	Temperature in degrees Fahrenheit.			Rainfall in inches and hun- dredths.		
	Normal.	*Excess.	*Deficiency.	Normal.	Excess.	Deficiency.
New England States :						
Eastport, Me.	57	1	.....	.89	.11	.....
Portland, Me.	64	.....	4	.84	.16	.....
Northfield, Vt.	62	2	.....	1.01	.....	.21
Manchester, N. H.	67	.....	3	.63	.27	.....
Boston, Mass.	68	.....	5	.77	.83	.....
Nantucket, Mass.	63	.....	3	.63	.67	.....
Block Island, R. I.	64	.....	4	.70	.00	.....
New London, Conn.	67	.....	1	.80	1.90	.....
Middle Atlantic States :						
Albany, N. Y.	70	0	.....	.91	.....	.01
New York, N. Y.	70	0	.....	.86	.24	.....
Philadelphia, Pa.	74	0	.....	.77	1.73	.....
Atlantic City, N. J.	69	1	.....	.77	.....	.27
Baltimore, Md.	74	2	.....	.98	.22	.....
Washington, D. C.	73	3	.....	1.03	.....	.32
Lynchburg, Va.	76	.....	2	.84	.16	.....
Norfolk, Va.	75	1	.....	1.01	.....	.81
South Atlantic States :						
Charlotte, N. C.	78	.....	2	1.16	.....	.46
Raleigh, N. C.	76	0	.....	1.40	.....	1.00
Wilmington, N. C.	78	0	.....	1.49	.....	.99
Charleston, S. C.	80	0	.....	1.32	.....	.82
Augusta, Ga.	80	0	.....	1.05	.....	.55
Savannah, Ga.	80	0	.....	1.66	.....	.36
Jacksonville, Fla.	81	1	.....	1.36	.....	.36
Titusville, Fla.	80	2	.....	1.96	.....	1.46
Jupiter, Fla.	81	.....	1	1.05	.....	.65
Key West, Fla.	84	.....	2	.98	.....	.28
Gulf States :						
Atlanta, Ga.	77	.....	3	1.05	.....	.55
Pensacola, Fla.	81	1	.....	1.47	.....	1.47
Mobile, Ala.	81	1	.....	1.47	.....	1.47
Montgomery, Ala.	81	.....	1	1.13	.....	1.13
Vicksburg, Miss.	81	1	.....	.98	.....	.98
New Orleans, La.	81	3	.....	1.61	.....	.61
Shreveport, La.	82	0	.....	.84	.....	.84
Fort Smith, Ark.	79	1	.....	1.04	.....	.34
Little Rock, Ark.	79	1	.....	1.03	.37	.....
Palestine, Tex.	80	2	.....	.78	.....	.78
Galveston, Tex.	83	0	.....	1.15	.....	1.15
San Antonio, Tex.	82	2	.....	.63	.....	.63
Corpus Christi, Tex.	82	0	.....	.62	.....	.62
Ohio Valley and Tennessee :						
Memphis, Tenn.	79	.....	1	1.11	.....	.91
Nashville, Tenn.	77	.....	3	.98	.12	.....
Chattanooga, Tenn.	77	.....	1	1.00	.20	.....
Knoxville, Tenn.	75	.....	3	1.03	.....	.33
Louisville, Ky.	76	.....	2	1.01	.19	.....
Indianapolis, Ind.	73	1	.....	1.18	.82	.....
Cincinnati, Ohio.	74	.....	2	1.03	.97	.....
Columbus, Ohio.	72	0	.....	.77	.33	.....
Pittsburg, Pa.	72	0	.....	.91	.69	.....
Lake Region :						
Oswego, N. Y.	65	3	.....	.84	.16	.....
Rochester, N. Y.	68	4	.....	.75	.....	.55
Buffalo, N. Y.	65	5	.....	.83	.....	.43
Erie, Pa.	68	2	.....	.90	.90	.....
Cleveland, Ohio	68	4	.....	.93	.....	.73
Sandusky, Ohio	71	3	.....	.95	.....	.85
Toledo, Ohio	71	3	.....	.81	.....	.81
Detroit, Mich.	69	5	.....	.84	.....	.74
Port Huron, Mich.	66	4	.....	.79	.....	.39
Alpena, Mich.	61	7	.....	.84	.56	.....
Marquette, Mich.	60	8	.....	.91	.....	.61
Green Bay, Wis.	66	4	.....	.64	.....	.54
Grand Haven, Mich.	65	1	.....	.94	.....	.74
Milwaukee, Wis.	66	6	.....	.90	1.00	.....
Chicago, Ill.	69	5	.....	.23	1.27	.....
Duluth, Minn.	60	6	.....	1.10	.....	.20

*The figures in these columns represent the average daily departure. To obtain the average weekly departure these should be multiplied by seven.

Table of temperature and rainfall, week ended June 26, 1893—Continued.

Locality.	Temperature in degrees Fahrenheit.			Rainfall in inches and hun- dredths.		
	Normal.	*Excess.	*Defic'ncy.	Normal.	Excess.	Deficiency.
Upper Mississippi Valley :						
St. Paul, Minn.....	69	3	.....	.98	.....	.18
La Crosse, Wis.....	70	2	.....	1.05	.....	.15
Dubuque, Iowa.....	71	1	.....	1.33	.....	.23
Davenport, Iowa.....	71	1	.....	.99	.....	.49
Des Moines, Iowa.....	72	0	.....	1.26	.....	.36
Keokuk, Iowa.....	73	1	.....	1.16	.26	.....
Springfield, Ill.....	73	1	.....	1.14	.....	.34
Cairo, Ill.....	76	.....	2	1.04	.....	.64
St. Louis, Mo.....	76	.....	2	1.12	.78	.....
Missouri Valley :						
Springfield, Mo.....	75	.....	3	1.22	1.18	.....
Kansas City, Mo.....	75	.....	1	1.17	1.53	.....
Concordia, Kans.....	74	4	.....	.86	.34	.....
Omaha, Nebr.....	73	1	.....	1.45	.....	.65
Yankton, S. Dak.....	71	3	.....	.98	.....	.98
Valentine, Nebr.....	69	1	.....	.70	.....	.70
Huron, S. Dak.....	69	3	.....	.84	.....	.84
Pierre, S. Dak.....	71	5	.....	.79	.....	.79
Extreme Northwest :						
Moorehead, Minn.....	66	2	.....	.98	.82	.....
St. Vincent, Minn.....	63	3	.....	.76	.....	.56
Bismarck, N. Dak.....	67	1	.....	.77	.....	.47
Fort Buford, N. Dak.....	67	.....	1	.77	.....	.57
Rocky Mountain Slope :						
Havre, Mont.....	64	.....	2	.70	.....	.50
Helena, Mont.....	63	.....	5	.45	.....	.45
Rapid City, S. D.....	66	4	.....	.83	.....	.73
Spokane, Wash.....	65	.....	7	.43	.....	.33
Walla Walla, Wash.....	68	.....	4	.90	.....	.10
Winnemucca, Nev.....	65	.....	5	.14	.....	.14
Salt Lake City, Utah.....	70	.....	4	.14	.....	.14
Cheyenne, Wyo.....	64	2	.....	.28	.....	.28
North Platte, Nebr.....	71	1	.....	.77	.....	.77
Denver, Colo.....	69	1	.....	.33	.....	.33
Montrose, Colo.....	68	2	.....	.08	.02	.....
Pueblo, Colo.....	73	3	.....	.33	.15	.....
Dodge City, Kans.....	75	3	.....	.76	.....	.16
Abilene, Tex.....	80	7	.....	.59	.....	.59
Santa Fe, N. Mex.....	67	5	.....	.23	.....	.23
El Paso, Tex.....	84	2	.....	.16	.....	.16
Tucson, Ariz.....	85	1	.....	.06	.....	.06
Pacific Coast :						
Port Angeles, Wash.....	55	.....	3	.30	.....	.30
Olympia, Wash.....	61	.....	5	.32	.....	.32
Portland, Oregon.....	64	.....	6	.40	.....	.40
Roseburg, Oregon.....	63	.....	7	.28	.12	.....
Eureka, Cal.....	55	.....	1	.36	.....	.26
Red Bluff, Cal.....	76	.....	6	.11	.....	.11
Sacramento, Cal.....	70	.....	6	.01	.....	.01
San Francisco, Cal.....	60	.....	6	.07	.....	.07
Fresno City, Cal.....	77	.....	7	.00	.....	.....
Kellogg, Cal.....	76	.....	2	.04	.....	.04
Los Angeles, Cal.....	68	.....	2	.00	.....	.....
San Diego, Cal.....	66	.....	2	.00	.....	.....
Yuma, Ariz.....	87	1	.....	.00	.....	.....

* The figures in these columns represent the average daily departure. To obtain the average weekly departure these should be multiplied by seven.

FOREIGN.

[Reports received from the medical officers of the U. S. Marine-Hospital Service stationed at foreign ports; from the United States consuls through the Department of State, and from other sources.]

BELGIUM.

Emigrant inspection at Antwerp.

UNITED STATES CONSULATE,
Antwerp, Belgium, June 13, 1893.

SIR: I have the honor to communicate that Surg. Wheeler's very welcome visit of inspection has been productive of valuable suggestions in the methods of work; and his several recommendations have already been established in as far as the local conditions of the port allow.

Through Dr. Wheeler's efforts I have to-day received an invitation from the Hamburg-American Packet Company to examine the emigrants for the Hansa Line embarking at this port.

The Hansa Line has weekly sailings from Hamburg, stopping at Antwerp, en route to Canada. The larger proportion of the steerage passengers are emigrants for the United States. These emigrants will hereafter go through the same programme as those for the Red Star Line. The arrangements for the disinfection of their baggage have not yet been completed, but it is hoped that the proper inspection and disinfection of this baggage will be accomplished before long.

This increase of work has made assistance imperative, and I have Dr. Wheeler's approval for employing an assistant.

Very respectfully, your obedient servant,

M. J. ROSENAU,
Assistant Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

Report of Surg. W. A. Wheeler on the inspection service at Antwerp.

ROTTERDAM, NETHERLANDS, June 14, 1893.

SIR: I have the honor to offer the following as a report upon the work of inspection at Antwerp, Belgium, as observed during a stay there of five days: The passenger business between Antwerp and the United States is entirely in the hands of one company, the Red Star Line, which sends during the summer season two ships per week to the United States. The Saturday ship for New York and the Wednesday ship for Philadelphia.

The Hansa Line, owned by the Hamburg-American Packet Company, of Hamburg, stops at Antwerp usually on Tuesdays of every week during the emigration season, and takes passengers to Quebec. The Red Star Line, through its agent, handles the passengers of the Hansa Line, and it is a member of the steamship pool, which embraces, besides, the lines carrying passengers from Hamburg, Bremen, Amsterdam, and Rotterdam. The Red Star Line does not provide any hotels in Antwerp for the accommodation of its steerage passengers, but it controls at the present time two out of a total of some thirteen which are used in the city as emigrant lodging houses. It has also secured for the summer season the use of a city bath house in which there exist facilities for

bathing sixteen persons at a time, and which is provided with a steam chamber for the steaming of wearing apparel. The steamship company secures business through its own agents and their subagents scattered throughout Europe, and instructs its steerage passengers to present themselves in Antwerp two days before the sailing of the ship. On arrival at Antwerp they are met at the stations by the company's men who, at the present time, conduct those coming from Russia and those coming from Hungary to these two hotels which they control. All others are allowed to go where they please.

The Russians are held in Antwerp for five days at their own expense, during which time they are given a bath at the city bath house (and their wearing apparel steamed while they are in the bath) and their baggage is taken to one of the company's wharves, and there unpacked and hung upon lines stretched across a ship's compartment, when it is steamed for an hour at a temperature of about 188° F., the highest point they have as yet reached. At the time of my visit to Antwerp, people coming from Hungary were looked upon with suspicion, and detained and treated in the same manner as were the Russians. It has been the habit to inspect the steerage passengers upon the dock a couple of hours previous to sailing, and as this is most unsatisfactory, both because the time is far too short and because the facilities are in nowise adequate, a very urgent appeal was made to the company, and it was promised that in future the passengers should present themselves for examination on the day previous to the ship's sailing, when the hour for leaving was in the forenoon, and a suitable building is to be provided in which the examination of both passengers and baggage can be conducted in a careful and thorough manner. The steamship company shows a disposition to furnish any reasonable aid to our inspector in carrying out his instructions, and to that end has prepared plans for a steaming plant with which to disinfect baggage such as the inspector may designate, which plant, when completed, will be all sufficient to do the work required, and superior to anything of the kind that I have seen at any European port. I assisted at the examination of the steerage passengers of the *Friesland*, leaving June 10, and among them were many Greeks, Poles, Hungarians, Russians, and Syrians, whose personal appearance, at least, could hardly be called prepossessing. The inspection work at Antwerp, I believe, will soon, with the coöperation of the steamship company, be all that can be desired. I was rather surprised to learn that the people of Antwerp do not regard smallpox as a disease particularly to be dreaded. It is treated in the city hospital as other milder diseases, and at the date of my visit there I saw some 60 odd cases. It is, however, diminishing since the advent of warm spring weather, which is natural. Vaccination is not compulsory, nor, in fact, very popular, most people having no fear of the disease. Arrangements have been made to have all the steerage passengers via the Hansa Line for Quebec examined by our inspector in exactly the same manner as if they were going to New York direct. It has been said that the more undesirable emigrants come to our country by way of the St. Lawrence River, by reason of the cheaper rates. Our inspectors at Hamburg and Antwerp will soon be in a position to judge if that statement be correct.

Very respectfully,

W. A. WHEELER,
Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

Report of contagious diseases at Antwerp.

UNITED STATES CONSULATE,
Antwerp, Belgium, June 17, 1893.

SIR: I have the honor to report that there is but slight abatement in the smallpox figures for the week, June 4 to June 10, 1893.

There have been 71 cases under treatment at Hôpitaux Civils, with a death rate of 10.

The same report gives 8 cases of typhoid fever, and 1 death; 2 cases of scarlatina, and 2 cases of diphtheria, with 1 death.

No more cases of cholera have been reported. There have been 8 deaths from diarrhea and enteritis during the week.

There has been a total of 77 deaths from all causes in a population of 248,296.

Very respectfully, your obedient servant,

M. J. ROSENAU,
Assistant Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

CANADA.

Arrival of immigrants at Quebec.

[Telegram.]

QUEBEC, June 24, 1893.

Vancouver, Liverpool, arrived with 652 steerage. All well.

CHAS. E. BANKS,
Passed Assistant Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

[Telegram.]

QUEBEC, June 26, 1893.

Laurentian, Liverpool, arrived, 542 steerage. All well.

CHAS. E. BANKS,
Passed Assistant Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

[Telegram.]

QUEBEC, June 26, 1893.

Lake Ontario arrived, Liverpool, 156 steerage. All well.

CHAS. E. BANKS,
Passed Assistant Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

[Telegram.]

QUEBEC, June 27, 1893.

Polaris, Hamburg and Antwerp, arrived, 538 steerage; all well. Luggage disinfected by White, but arrangements not completed for acceptance here. No more steamers until Saturday.

CHAS. E. BANKS,
Passed Assistant Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

COSTA RICA.

Relative to yellow fever at Limon.

[For the information of the Surgeon-General of the Marine-Hospital Service.]

UNITED STATES CONSULAR AGENCY,
Limon, Costa Rica, June 10, 1898.

GENTLEMEN: In view of possible rumors reaching you, I submit the following representation. Dr. B. F. Taylor, the writer of the inclosed letter, is here in behalf of the New Orleans board of health, paid by them to keep them protected, thoroughly reliable, towards 70 years old, an old resident of New Orleans, and as he has been all his life familiar with the epidemics of New Orleans, he is undoubtedly well up in yellow fever. I feel quite confident I am safe in being guided by Dr. Taylor in issuing bills of health. On the 28th of May the first death occurred pronounced yellow fever. On the 30th the *Foxhall* left for New Orleans; after consulting with Dr. Taylor and our consul at San José, I gave a clean bill of health, except that in the margin I noted the death of the 28th as sporadic, not epidemic. As the *Foxhall* has been cabled to return on her regular day she must have gone through all right.

On the 3d instant the steamer *Athos* left here for New York. There were then no new developments, and I gave her a clean bill; same with the *Hispania* for New Orleans on the 8th instant. The *Alvena* leaves to-day, and I gave her a clean bill conscientiously, after due consultation. I have lived here twenty years and know how these things are here. A change of weather has now come, and the fever is likely soon to cease. From April to June may be called our bad season, if any exists. Every year these months are hot. This year it has been excessively hot, even muggy, and the tides have been excessively low, exposing the reef all around the town. This exposure of the reef is our chief cause of sickness, being an exposure of all waste stuff to decay; even the fish are left there sometimes. Limon is not subject to yellow fever; it has never been here except when introduced from abroad, or sporadic, resulting from our dab malarial fever, which is sometimes very bad and fatal, but is not infectious.

Your obedient servant,

W. B. UNCKLES,
United States Consular Agent.

To the Hon. SECRETARY OF STATE, Washington, D. C.

[Inclosure.]

LIMON, COSTA RICA, June 10, 1898.

DEAR SIR: In response to your inquiry regarding the health of Limon I beg to state that in the past week we have had several deaths, some of them being undoubtedly yellow fever, though of a sporadic character, not having developed as yet in an epidemic form, therefore it can not be said that there is an epidemic of "a contagious and infectious character" existing in Limon, though it may, in the future, occur. The climatic conditions recently existing, dry weather, high heat, and the lowness of the tides exposing the coral reefs to the influence of the sun for more than a month, with bad or no water for drinking and other purposes, all have tended to produce sickness. Since the rains and fine weather, such as exists to-day, it is thought that

the health of the place will be improved. As I understand, the passengers by the *Alvena* are all from the interior, and consequently have not been exposed to any infection that may have existed. Under these circumstances I see no impropriety of giving a bill of health found on the circumstances and state of affairs existing at the present time.

Very respectfully,

B. F. TAYLOR, M. D.,
Medical Officer Old State Board of Health, Louisiana.

To W. B. UNCKLES, Esq.,
Vice-Consul.

FRANCE.

One case of cholera at Lyons.

UNITED STATES CONSULATE,
Marseilles, June 14, 1893.

SIR : I have the honor to inform you that a fatal case of cholera has occurred at Lyons, June 12. The case was that of a man who had just arrived from the south of France.

Respectfully yours,

FAIRFAX IRWIN,
Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

Sanitary condition of Marseilles.

UNITED STATES CONSULATE,
Marseilles, June 3, 1893.

SIR : As regards the circular of May 12, relating to the labeling of baggage and the issue of inspection cards, I have to report that I had such labels and cards printed, and had them for use May 20. They were ordered at the request of Assistant Surg. Carrington. There has been no use made of them for the reason that the steamships leaving this port now for New York do not take and have declared that they will not take any passengers from here as long as this port is regarded by the United States health authorities as suspected.

Although the mayor refuses to give us any information as to the sanitary condition of this city, I can confidently assert that the general health of the district has been good since the month of February. My opinion is based on information obtained from my family doctor, the secretary of the French Protestant Church, who has charge of the funerals, my consular colleagues, and many acquaintances made here during the past few years.

There have been a few deaths from cholera since February, say a death or two per week, and in the month of April there were 22 deaths from smallpox, but the mortality for months of February, March, and April was slightly below that for the corresponding period in 1892.

	1892.	1893.
February	1,101	1,088
March	1,012	867
April	851	942
	2,964	2,897

Of course it is possible that an outbreak of cholera may occur at any moment, but should such be the case we are fully prepared for it, as our health officers have been treating this port as infected for some time back.

I have the honor to be, sir, with great respect, your obedient servant,
CHARLES B. TRAIL.

To the Hon. JOSIAH QUINCY,
Assistant Secretary of State.

*Translations from French journals relative to cholera, transmitted by Surg.
Fairfax Irwin.*

[From *La Sémaphore*, June 14, 1893].

[Consulting committee of hygiene.—Sanitary condition of France and other countries.]

PARIS, June 15.

The consulting committee of hygiene met yesterday, M. Brouardel presiding; M. Henri Monod, sanitary inspector, made a report on the sanitary situation of France. Cholera appears to have ceased in Morbihan; in Vendée there have only been 6 deaths since June 8; the disease has shown itself in several towns of the Midi. Several delegates of the sanitary administration have been sent to these places. The administration has sent M. Damaye to the department of l'Hérault, and the following passage is taken from his last report:

"Cholera cases are not sent to the hospital in Clette, every case of this character is immediately sent to the lazaretto; this is established in a sanatarium, a dependency of the hospital, and situated on the seashore, about 2 miles from the town. Two of the several pavilions of which it is composed are set aside for the reception of cholera cases, one for men the other for women. The remainder of the pavilions are unoccupied. On the 7th of June there were in this lazaretto 2 men and 3 women, 1 of the latter died on the morning of the 8th." As to the exact number of cases and deaths that have taken place the statements are too contradictory and uncertain to be reported. There have been several cases and deaths in the insane asylum at Montpellier. Certain localities of the Aude have been infected, Carcassonne more particularly, but all the same during the last forty-eight hours there have been but 3 deaths, all 3 being old and feeble persons.

The préfet telegraphs that he will ask for a special sanitary inspector if the disease is not definitely arrested. Dr. Mosny is stationed at Alais, and it is here that the situation appears most grave. Up to yesterday at 5 in the afternoon the total number of deaths was 61. Our delegate has taken the most energetic measures, which he has been enabled to do by virtue of a decree, and this decree as well as the law of 1882 is posted in the town.

Dr. Thoinot has gone to Toulon. M. Proust, inspector-general of the sanitary service, made a report as to the condition of affairs in other countries.

Cholera is epidemic at Malacca.

Turkey.—Cholera rages with intensity at Bassorah and its environs. It appears from telegrams from Bagdad, under date of June 1, to have appeared at Chatra, Amara, and Bassorah. Subsequent telegrams from Bagdad inform us that the disease is increasing rapidly. From a bulletin it appears that from May 17 to about June 10 there were 126 deaths from cholera in the three places just named. We are not in-

formed as to the extension of the epidemic, but it appears to be spreading among several tribes in the environs of Amara, a town situated upon the Lower Tigris, a little above stream from Korma, and in numerous villages of the rich palm district of the plain of Bassorah.

It is certain that cholera has existed for a month or more among the tribes of Arabs of Lower Mesopotamia or Irak (Arabia).

What is its origin? Does it come from English India or Persia, or is it a revivification of the epidemic of 1889. It is impossible to say without information, and it is probable that information will always be in default. The point most menaced, actually, is Bagdad. The council of health have sent to the Sublime Porte the instructions for arresting the march of the disease, but we know in advance the difficulties to be overcome by the Turkish authorities in dealing with the Arab tribes and the half savages of Arabian Irak. Happily, for some time inundations from two large rivers have interrupted communication by land between Bagdad and its surroundings.

In general the sanitary condition of Europe is good, and there need be no grave anxiety as to the public health.

[From *La Sémaphore*, June 14, 1893.]

MONTPELLIER, June 13, 1893.

Two cases of cholera have appeared in this city. One of the patients is a policeman who was on duty at the market this morning. One death occurred at the suburban hospital, and burial was immediate.

Cholera in Southern France.

UNITED STATES CONSULATE,
Marseilles, June 15, 1893.

SIR: The following is the latest authentic information concerning cholera in the south of France obtainable.

At Alais June 11, 9 deaths; June 12, 7 deaths; total deaths last fifteen days, 46.

At Clette, June 11, 3 new cases and 1 death.

At Montpellier, 2 deaths, June 11. Sporadic cases occur at Marseilles and Toulon (not admitted by the authorities) death rate at both cities not above normal. Clean bills of health are given by both French and English authorities.

Respectfully, yours.

FAIRFAX IRWIN,
Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

The cholera in the department of Morbihan.

Under date of June 11, the United States consular agent at Lorient, reports that 1 case of cholera and 1 death from the same disease occurred in the district of Vannes during the week ended June 11, 1893. During the same period no cases of cholera appeared in either Lorient town or Lorient district.

Deaths from choleriform diarrhea at Toulon and Hyères.

UNITED STATES CONSULATE,
Toulon, June 10, 1893.

SIR: I beg to inform you that since the 3d instant, 11 deaths from choleriform diarrhea have occurred in the town and suburbs. These diseases occurred principally among the Italian people. Nineteen deaths occurred at Hyères, also among the poor foreign people. No more registered since last week. Two at La Seyne this week. No deaths occurred in the civil or military hospitals. I will communicate at once information of any suspected deaths which may occur within this consular district.

I am, sir, your most obedient devoted servant,

L. V. JOUVE,
United States Consular Agent.

To CHAS. B. TRAIL, Esq.,
United States Consul at Marseilles.

The cholera in the department of Vendée.

Under date of June 19 the United States consul at Nantes reports that during the week ended June 13 there were 6 deaths from cholera in the department of Vendée.

GERMANY.

Sanitary condition of Bremen.

BREMEN, GERMANY, June 12, 1893.

SIR: I have the honor to report that the inspection of emigrants and their effects at this port is going on very satisfactorily, and that there is no unusual sickness in Bremen, and no contagious disease other than a few cases of diphtheria and scarlet fever.

Very respectfully, P. M. CARRINGTON,
Passed Assistant Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

Inspection of emigrants at Bremen.

BREMEN, GERMANY, June 14, 1893.

SIR: I have the honor to report that the inspection of passengers and baggage here is going on satisfactorily. We receive no emigrants from the infected districts in Russia, but as a matter of precaution all Russians and Hungarians are held five days and their effects are disinfected by steam before embarkation. Emigration from this port is decreasing very decidedly, and I find, as I grow more familiar with the work, that it is not so arduous as at first. Two cases of smallpox have recently occurred amongst a special lot of Russian emigrants who are to sail on a chartered steamship, the *Red Sea*; this lot of emigrants are being held here for observation, and their effects will be thoroughly disinfected by steam before they are allowed to proceed. The sanitary situation here continues excellent, no diseases of a contagious character, other than 2 cases of smallpox and a few cases of diphtheria and scarlet fever having occurred in the past two weeks.

Very respectfully, P. M. CARRINGTON,
Passed Assistant Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

IRELAND.

Inspection of emigrants at Queenstown.

UNITED STATES CONSULATE;
Cork (Queenstown), Ireland, June 2, 1893.

SIR: I beg to inform you that, although I have not yet received the official circular from the State Department bearing on United States Treasury Circular No. 65, I made an application of the regulation here to-day.

Every emigrant was examined at the consulate by a local physician, and after he had passed them a card was issued to each.

Each applicant was examined thoroughly, and, if successfully vaccinated, a record of it was made on the card.

There was not a single objection on the part of the applicants.

The result of the examination for the first two ships was the refusal of 8 persons by the physician.

I also beg to report that people from the continent are commencing to come here to embark. I refuse these people unless they are willing to submit to inspection and fumigation.

There must be some reason for their coming so far out of their way to embark. Of course I refer to steerage passengers.

I have the honor to be, sir, your obedient servant,

HENRY G. KRESS,
United States Consul.

To the Hon. JOSIAH QUINCY,
Assistant Secretary of State.

ITALY.

Inspection and vaccination of emigrants and seamen at Genoa, Italy.

UNITED STATES CONSULATE,
Genoa, June 11, 1893.

SIR: I have the honor to inform you that the steamship *Great Northern* (coal ship) sailed from this port June 10, 1893, bound for Baltimore, without cargo. On inspecting crew I found 4 seamen who had not been vaccinated, and before giving bill of health I required these to be vaccinated, which was done by a physician in my presence. In regard to vaccination I shall require all unvaccinated seamen to be vaccinated, but will pass men with good scars. It is impracticable to vaccinate all of the crew, because captains do not like going to sea with all hands disabled with sore arms. Vaccination is especially severe with engineers and firemen, who are constantly exposed to coal dust and heat. I shall continue to take the above precaution as long as there are any cases of smallpox in Genoa.

Very respectfully,

B. W. BROWN,
Assistant Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

UNITED STATES CONSULATE,
Genoa, June 14, 1893.

SIR: I have the honor to report the departure from Genoa, on June 14, 1893, of the North German Lloyd steamer *Werra*, with 1,068 per-

sons on board; 790 of these were steerage passengers. All baggage of emigrants fumigated, contents being spread on racks, and, together with trunks, exposed to sulphur (4 pounds to 1,000 cubic feet of air space) for twelve hours. Crew, including officers, vaccinated by ship's surgeon in my presence. All third-class passengers will be vaccinated during the first day out from port. Cargo general, with the exception of two or three boxes of clothing, the sanitary history of which being good, I inspected and passed.

Very respectfully,

B. W. BROWN,
Assistant Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

Sanitary condition of Genoa.

UNITED STATES CONSULATE,
Genoa, June 12, 1893.

SIR: I have the honor to report that the last health report, dated June 10, gives only 3 cases of smallpox. No new cases have developed during the past week. There is also a marked diminution in the cases of diphtheria and measles. Shall continue to require the vaccination of all unvaccinated seamen.

Very respectfully,

B. W. BROWN,
Assistant Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

PERSIA.

Sanitary condition of Persia.

UNITED STATES CONSULATE-GENERAL,
Teheran, Persia, May 15, 1893.

SIR: I have the honor to acknowledge the receipt of your circular letter of April, 1893, in regard to watching and reporting the movement of persons and merchandise from any part of this Kingdom where cholera exists to the United States. I shall endeavor to carry out your instructions to the best of my ability. Outside of Teheran the only consular officer in Persia is Mr. Tigrone J. Malcolm, who is the consular agent of the United States at Bushire. I shall immediately forward to him a copy of your letter with the inclosed Treasury letter.

Persia, as a source of cholera for the United States, is peculiar. All of its foreign trade to the westward is sifted through Russia, Turkey, or England, and possibly a little through Marseilles, France, before reaching the other countries in that part of the world.

The consequence is that while Persian goods go to the United States, they are not stated as coming from Persia but from other countries. It follows from this, further, that it is practically impossible to know in Persia whether merchandise starting from here westward will finally reach the United States or will stop permanently in some one of the intermediate countries. It follows, still further, that whatever danger the United States may be in of receiving cholera by means of Persian merchandise, lies not in the merchandise that is known to come from Persia, but in merchandise which nominally comes from Russia, Turkey, England, or France. In regard to the movement of persons westward,

the conditions are similar. Persians who intend to go to the United States obtain their passports here for Russia or Turkey, or, if going from Bushire, for England or France. As a matter of fact, almost no Persians do go to the United States.

There have been repeated reports here in Teheran this spring of the appearance of cholera in more or less distant Persian towns and villages. Investigation in each case has shown gross and misleading exaggeration in these reports. There have been isolated cases of cholera here in Persia this spring, or at least of what it was believed was cholera. But in no case has the disease spread or become more than an individual matter, and hence it is inferred that each case was due to special individual causes. The prevalent opinion here in Teheran is that there will be some cholera here during the approaching hot season, but it is not thought likely to rise to the height of an epidemic. There has been considerable smallpox in Teheran this spring, but it has been confined wholly to the native population.

I have the honor to remain, sir, your most obedient servant,

WATSON R. SPERRY,

Minister Resident and Consul-General.

To the Hon. JOSIAH QUINCY,
Assistant Secretary of State.

SPAIN.

Cholera in Catalonia.

[Telegram.]

MARSEILLES, June 27, 1893.

Cholera now prevails in Catalonia, Spain.

FAIRFAX IRWIN,
Surgeon, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

SWEDEN.

The smallpox epidemic at Gothenberg.

Under date of June 10, 1893, the United States consul at Gothenberg transmits the following report:

Denmark has ordered inspection of all persons coming to Copenhagen by boat from Gothenberg. The published weekly statement of number of cases of disease, upon which until recently I have relied as official and full in making sanitary reports, proves to be only a partial statement, containing only such cases as have been treated by "district doctors" employed by the city. The latest statement—to June 9—of the number of cases of smallpox in this city and across the river in Lindholmen is 79, with 4 deaths. It has appeared in nearly every part of the city, and general vaccination is ordered. I have kept the consul at Liverpool advised of the smallpox condition here.

Respectfully yours,

CHAS. H. SHEPARD.
United States Consul.

To the Hon. SECRETARY OF THE TREASURY.

TRIPOLI.

The epidemic of typhus fever at Benghazi, Tripoli.

The following account of the epidemic of typhus fever which prevailed at Benghazi during the winter and early spring, is taken from the report of the medical commission sent to Benghazi by the government of Malta for the purpose of inquiring into the nature of the epidemic disease prevailing at that place. The report was forwarded to the bureau by the United States consul at Malta :

Towards the latter end of November, 1892, and during the early part of December following, cases of the disease in question are reported by Dr. Planchit, the Government port medical officer, to have been present among the Bedouins of the interior, and to have occurred sporadically during the second week of December among the Arabs in the town. Its appearance at Benghazi in epidemic form (just before December 13, 1892) was shortly after the arrival of a large number of Bedouins from the interior, estimated to have reached, between December 13 and February 29, 20,000. These Bedouins were in a famine-stricken condition owing to failure of crops, the result of three successive years of drought combined with visitations of locusts. These Bedouins camped in open spaces close to and even among the houses of Benghazi, combining hunger, extreme misery, and dirt, with overcrowding and much fouling of the ground and atmosphere. Very many died of famine, cold, and hunger, and during the early stages of the epidemic sanitary measures, burial, etc., were carried out in the most unsatisfactory manner. At this period, also, heavy rain fell, and the weather became extremely cold.

A virulent form of contagious fever with excessive mortality was observed towards the end of December among the Bedouins in tents, which early in January became very severe and spread to the town, reaching its height among the Arab population of the town, about the latter half of January. In January also it spread to the Christian community, reaching its maximum intensity between February 12 and 25, 1893. During the first week of February the departure of many of the Bedouins caused a temporary decrease in the prevalence of the disease amongst the Arab population, but towards the third week more Bedouins arrived, and, crowding round the town, caused a fresh outbreak.

The alarm caused by this increase in the prevalence of the disease, combined with the scarcity of money and trade, caused many of the Christians to leave about March 1.

The Bedouins left permanently about the end of February. During March the disease began to rapidly decrease in prevalence—the cases becoming milder in type, and were reported to be of a sporadic and abortive character.

The disease in question was without doubt that highly contagious fever known as "spotted typhus" or "typhus exanthematicus," and it occurred during the cold and wet weather, prevailing in epidemic form at Benghazi between December 13, 1892, and March 31, 1893, in a community at that time suffering from extreme overcrowding, dirt, misery, and famine, and living in a town whose hygiene and sanitation, always rudimentary for so populous a place, was, moreover, at that time in an exceptionally handicapped condition, owing to the sudden influx of Bedouins doubling the permanent population.

Opinions differ as to its origin, the popular belief being that the disease was imported by the nomadic Bedouins from the interior; but it is impossible to say whether this is the true origin or whether, being endemic in the soil of the town, it broke out on the advent of crowds of susceptible people under the suitable conditions present for an epidemic outburst. Its prevalence was in exact proportion to the amount of overcrowding present, and also to the amount and continuance of the rainfall and cold, these latter factors producing indirectly a state of overcrowding by confining the people to closed-up rooms and tents. The disease spread from house to house, in regular succession of streets and quarters, as a rule, affecting a number of the inmates of each house, though this was not so markedly the case in the more hygienic Christian community.

Its cessation was synchronous with the cessation of overcrowding, the enforcement of primitive hygienic measures, and the advent of dry, warm weather.

Among the Jews it ceased at the Paschal feast, at which time they are compelled to wash themselves, their clothes and utensils, and to whitewash their houses. The disease attacked young and old, strong and weak; relapses were not noted, and typical second attacks in the same individuals were uncommon.

The troops suffered less than the townsfolk, owing to their being mostly in barracks and tents outside the town, but here even 13 per cent caught the fever. The troops have a separate water supply.

Post-mortem examinations are not allowed on account of religious prejudices.

Owing to the peculiar nature of Turkish rule and the ignorance and rivalry of local physicians it was difficult to obtain even rough statistics and impossible to obtain accurate ones. Moreover, the Arabs as a rule neither register their deaths nor call in a qualified physician. It has, however, been roughly estimated that in the height of the epidemic there were from 14 to 15 deaths daily, and that between 20 and 30 per cent of the combined town and Bedouin population (about 40,000) caught the disease, of which fever cases about 15 per cent died.

The only deaths registered at the municipality were those of men too poor to even provide themselves with a shroud and who applied for one from the public store.

Among the soldiers, 1,500 in number, there were reported to have been 200 cases of typhus, with 16 deaths.

In the Christian community an accurate death register is kept by the Capuchin monks, showing 28 deaths from typhus: December, 1892, 1 death (on December 29, 1892); January, 1893, 5 deaths; February, 1893, 15 deaths; March, 1893, 6 deaths; April, 1893, 1 death (on April 15, 1893); or a total death rate of between 9 and 10 per cent.

DISTRIBUTION—Benghazi.—Principal seat of epidemic. Place where it was first noticed and where possibly it originated.

Derna.—Suffered considerably from the disease, commencing in January when the epidemic at Benghazi was at its height. During the height of the epidemic there were about 10 deaths a day. We ourselves saw 3 typical acute cases, and were given accounts of former cases by convalescents.

Garguep.—A small fortified post with a garrison of 100 soldiers, who are well housed. Here 5 cases occurred with no deaths.

Merge.—A large town surrounded by marshes and swamps, the seat and origin of the plague in 1874, and subject to severe malaria. Here 9 fatal cases occurred.

Ogila and Gialo.—Town situated on a desert oasis in the interior. Dr. Stratti, the principal medical officer, reports the occurrence of typhus, but not in severe form in these towns.

Dr. Mizzi also visited many of the towns and villages between Benghazi and Derna, where he saw many cases of sporadic typhus. He is of opinion that these and the cases in Derna were due to infection carried from Benghazi by commercial intercourse.

We are finally of opinion that—

(1) The disease was undoubtedly that known as "spotted typhus" or "typhus exanthematicus," there being no difficulty in arriving at a true diagnosis. Its cause was famine, misery, overcrowding, and unsanitation.

(2) The disease was of a very severe type, and is said to have passed in its ravages the epidemics of 1872-1874.

(3) The epidemic is now over, and we are of opinion that even sporadic cases will cease with the advent of warm weather, and the disease disappear, for "a time" at any rate, about the first week of May, 1893.

As to what may occur next winter, if the present state of unsanitation and poverty continues to exist in Benghazi, it is impossible to predict, but there is every condition present to favor the occurrence of a similar or worse type of epidemic disease.

(4) The occasional occurrence of parotitis, boils, and, in one case, of a simple acute axillary abscess, caused by the Moslem habit of epilation, together with the want of telegraphic or other communication and the severity of the epidemic, probably led to the rumor that bubonic plague had broken out at Benghazi, an erroneous report which a slight amount of scientific knowledge might have easily set right had a telegraph existed, and which was, we believe, set going by men of unscientific and unofficial character.

Signed at Malta this 2d day of May, 1892.

M. LOUIS HUGHES,
Surgeon, Captain, A. M. S.
D. VELLA.

TURKEY.

Sanitary condition of the Turkish Empire—Report of the United States sanitary commissioner.

[Report No. 68.]

Some months since I reported that cholera did not exist in the Turkish Empire. It is with great regret that I now have to state that cholera broke out in Mesopotamia at Amara, Shatra, Bassorah, and among the Arab tribes of Abdullah-ben-Ali and those of Mallich.

The first appearance of the disease occurred on the 20th of May, 1893, and directly the authorities of Amara, as well as the sanitary inspector of Bagdad, telegraphed to notify me of the fact. The same was done on the following days when fresh attacks were registered, but all these telegrams only arrived here yesterday, the 30th.

The sanitary inspector at Bagdad telegraphed, under date of 24th instant, that on the 20th he had received telegraphic news from Amara that 2 men and 1 woman died with symptoms resembling those of cholera. According to orders from the central board of health, the sanitary physician from Bassorah and an army surgeon from Bagdad have gone to Amara in order to ascertain and inquire into the facts. At the

same time it has been ordered that steamers should not land at Amara. On the 24th and 25th two fresh attacks were registered, one of which occurred in a soldier.

The inhabitants of the place fled, and it is to be feared that they will spread the disease, although orders have been issued by which the flight of the fugitives will be stopped at Kut.

The sanitary physician who is on the spot reports the following symptoms which have been noticed: Diarrhea, abundant and colorless defecations, vomitus also colorless, great thirst, features shrunken, eyes sunk, cramps in the lower limbs, low temperature, and anuria. It has been ascertained that the above-mentioned sickness has not been occasioned by debauchery.

The same disease has been seen at Bassorah, where 3 fresh attacks occurred on the 28th, of which 1 proved fatal. It has been registered that from 12 to 15 deaths occur every day among the Arabs of the above-mentioned tribes of Abdullah-ben-Ali and of Mallich.

The authorities as well as the sanitary physicians state that the population hide the facts in order not to be vexed by the measures taken.

Orders have been issued to take the necessary steps to check the spread of the disease.

I will report before long on the measures adopted.

SPIRIDION C. ZAVITZIANO.

CONSTANTINOPLE, May 31, 1893.

WEST INDIES.

Report of departure from Havana of schooner John C. Smith, after having had yellow fever on board while in port.

[Telegram.]

HAVANA, June 25, 1893.

John C. Smith, American schooner, sailed Saturday for port in United States via some national quarantine station, probably Chandeleur; had 4 cases yellow fever while here.

DANIEL W. BURGESS,
Sanitary Inspector, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

NOTE.—Information, in accordance with the facts of the above cablegram, has been telegraphed to the medical officers in charge of Gulf and Key West Quarantines.

Departure from Havana of the British barkentine Icarus for Mobile via Gulf Quarantine.

HAVANA, CUBA, June 19, 1893.

SIR: I had the honor of sending you yesterday, the 18th instant, the following telegram:

"*Icarus*, British barkentine, Saturday, Mobile via Chandeleur, probably, 3 cases yellow fever while here."

This vessel, which discharged at Tallapiedra wharf, Havana side of harbor, had 3 cases of yellow fever occur aboard (including her captain) while at that place, as I intimated to you in a communication of the 6th instant concerning the American schooner *Richard S. Spofford*. The

captain refused to go ashore, and passed through his sickness in the cabin, but the two sailors, one of whom was a Japanese, were sent to a hospital ashore.

The vessel was pulled away from the wharf a few days before leaving, and as soon as the captain was well enough to sleep ashore her hold, cabin, and forecastle were fumigated for forty-eight hours with sulphur, and afterward the cabin and forecastle, etc., were treated with mercuric solution.

The vessel being a lumber craft and having brought a load of spruce here was, after being well swept out, fairly clean; but it is necessary to add that when she sailed she was laying very near another vessel, the American schooner *John C. Smith*, which had yellow fever aboard. As the barkentine was going to Mobile her captain, who was still rather feeble, was advised to go direct to Dry Tortugas, or Chandeleur Island Government Refuge Station and report, and he said that he would go to Chandeleur.

Very respectfully, your obedient servant,

D. M. BURGESS,
Sanitary Inspector, M. H. S.

To the SUPERVISING SURGEON-GENERAL M. H. S.

Sanitary measures at Trinidad.

UNITED STATES CONSULATE,
Trinidad, W. I., June 12, 1893.

SIR: I have the honor to acknowledge receipt of Department circular letter of May 10, 1893, in respect to the Treasury quarantine rules and regulations, and also the receipt of a few of the prescribed bill of health forms.

I shall endeavor to fully carry out the new duties imposed on the consulate, which in their general application, though they entail considerable work, I deem both important and practicable. I apprehend, however, that I shall find it difficult, if not impracticable, to enforce with literal strictness some of the duties prescribed for shipmasters. For instance, a large number of vessels applying to me for bills of health load at La Brea, some 45 miles distant, with crude asphalt or pitch, a substance which is loaded in bulk; and though it is of a sanitary character (possibly a disinfectant) much of it contains mud and probably all of it emits in the vessel discolored water.

I apprehend that some shipmasters may not feel the necessity without previous warning, which I may not in all cases be able to give them, to have their vessels "dry" and "mechanically clean in all parts" in order to receive such a damp and dirty cargo, though the same shipmasters might be among the first to place their vessels in a dry and clean state to receive grain or cacao or other cargo requiring cleanliness and dryness.

With a view of carrying out the rules and regulations in a more satisfactory manner than I could otherwise expect to do, I have addressed an official letter to those interested in vessels bound for American ports, setting forth some of the principal requirements imposed on vessels, and requesting shipmasters to give the consulate timely notice of their desire to obtain bills of health. I shall place a few copies in the hands of the principal shippers and consignees of vessels and keep a supply on hand at the consulate to hand American shipmasters when they file their ship's papers.

In this way I hope to give express warning to all or nearly all the vessels bound for the United States before they take cargo; and I also hope, by this means, to encourage a general and permanent feeling on the part of interested shippers of merchandise, and to aid in securing the best sanitary conditions of vessels, and all on board bound for American ports.

* * * * *

I beg to submit herein a copy of the printed letter referred to.

I have the honor to be, very respectfully, your obedient servant,
WILLIAM P. PIERCE.
Consul.

To the Hon. JOSIAH QUINCY,
Assistant Secretary of State.

[Inclosure.]

Vessels bound for American ports.

UNITED STATES CONSULATE,
Trinidad, June 10, 1893.

To Shippers, Consignors of Merchandise, and others interested in vessels bound to ports of the United States from this Consular District:

GENTLEMEN: The quarantine rules and regulations recently issued by the Secretary of the United States Treasury Department, pursuant to act of Congress of February last, impose certain duties on vessels bound for American ports, the due performance of which is to be certified by the consul on the bill of health; and any vessel entering a port of the United States in violation of these rules and regulations is to forfeit to the United States a sum not exceeding \$5,000.

I beg to invite your attention to some of the requirements.

If the port be infected or if the vessel be carrying passengers it must be inspected, within six hours of sailing if practicable, by the United States consul. Other vessels may be required to submit to inspection by the consul if he deems it necessary.

Disinfections, under consular supervision, are required if the port should be infected or if any contagious or infectious disease has appeared on board during or since the previous voyage.

Certain articles of merchandise or personal effects and bedding coming from a district known to be infected, or articles which the consular officer may have reason to believe to be infected, must be similarly disinfected.

All rags and all textile fabrics used in the manufacture of paper must also be disinfected under consular supervision, before shipment.

Clothing used by persons who have died of cholera, cholerine, typhus fever, plague, yellow fever, or smallpox, should not be received on board.

Every shipmaster, whose vessel, sail or steamer, is bound from Trinidad to a port in the United States, must produce satisfactory evidence to this consulate, whether the port be infected or not, that his vessel has complied with the following provisions of the said regulations, otherwise an unqualified certificate on the bill of health, "that the vessel has complied with the rules and regulations," can not be granted:

ART. IV. "Vessels prior to taking on cargo and passengers for any port in the United States shall be mechanically clean in all parts. Special attention must be paid to cleanliness and dryness of hold, forecastle, and steerage. The bilges and limbers must be clean, free from

deposit, and without offensive odor, and disinfection of the vessel may be required if considered necessary by the consular or medical officer," etc.

ART. VI. "In all wooden vessels coming from a port or place south of latitude $23^{\circ} 30'$ north, or which may have been exposed to the infection of yellow fever, the mechanical cleansing must be most thorough; the bilges, limbers, frame spaces, floor spaces, etc., must be clean, free from mud, chips, sawdust, and pieces of dunnage. The hold must be dry, free from rotten wood, and the air streaks must be sufficient in number and open for ventilation," etc.

Every shipmaster desiring to obtain a bill of health should give the consulate timely notice of such desire. A failure to give this notice before loading cargo (when it is practicable to do so) will tend to create suspicion and to defeat the issue or to depreciate the terms of the bill of health applied for.

The certificate subjoined to the notice should be signed by an American shipmaster if practicable, otherwise by some other competent person.

Very respectfully,

WM. P. PIERCE,
United States Consul.

STATISTICAL REPORTS.

CUBA—*Havana*.—Under date of June 24, 1893, the United States sanitary inspector reports as follows:

There were 159 deaths in this city during the week ending June 22, 1893. Eighteen of those deaths were caused by yellow fever, with approximately 55 new cases, 4 were caused by enteric fever, 7 by so-called pernicious fever, and 2 by diphtheria. Three of the deaths by yellow fever were in the military hospital, the remaining 15 having occurred in civil hospitals and different unsanitary parts of the city. There has been much warm rainy weather for the last twenty-five days.

GREAT BRITAIN—*England and Wales*.—The deaths registered in 33 great towns of England and Wales during the week ended June 10 corresponded to an annual rate of 18.2 a thousand of the aggregate population, which is estimated at 10,322,429. The lowest rate was recorded in Nottingham, viz, 9.7, and the highest in Liverpool, viz, 24.7 a thousand.

Hull.—Two weeks ended June 3, 1893. Population, 208,639. Total deaths, 129, including smallpox, 1; scarlet fever, 1; diphtheria, 2; measles, 8; and whooping cough, 4.

London.—One thousand four hundred and ninety-one deaths were registered during the week ended June 10, 1893, including smallpox, 7; measles, 38; scarlet fever, 24; diphtheria, 39; whooping cough, 31; enteric fever, 8; and diarrhea and dysentery, 70. The deaths from all causes corresponded to an annual rate of 18.1 a thousand. Diseases of the respiratory organs caused 233 deaths. In greater London 1,856 deaths were registered, corresponding to an annual rate of 16.5 a thousand of the population. In the "outer ring" the deaths included diphtheria, 16; smallpox, 3; and 11 from scarlet fever.

Ireland.—The average annual death rate represented by the deaths registered during the week ended June 10 in the 16 principal town districts of Ireland was 18.2 a thousand of the population. The lowest rate was recorded in Galway, viz., 0.0, and the highest in Kilkenny, viz., 28.3 a thousand. In Dublin and suburbs 159 deaths were registered, including measles, 5; whooping cough, 2; and enteric fever 1.

Scotland.—The deaths registered in 8 principal towns during the week ended June 10, corresponded to an annual rate of 21.2 a thousand of the population, which is estimated at 1,447,500. The lowest mortality was recorded in Aberdeen, viz., 16.5, and the highest in Paisley, viz., 28.6 a thousand. The aggregate number of deaths registered from all causes was 598, including measles, 46; smallpox, 1; scarlet fever, 7; diphtheria, 7; whooping cough, 26; fever, 4; and diarrhea, 16.

ITALY—Milan.—Month of March, 1893. Population, 421,564. Total deaths, 1,106, including smallpox, 1; enteric fever, 8; scarlet fever, 6; and diphtheria, 50.

Month of April, 1893. Total deaths, 1,064, including smallpox, 2; enteric fever, 12; scarlet fever, 3; and diphtheria, 28.

MEXICO—Acapulco.—Month of May, 1893. Population, 4,000. Total deaths 12, including 2 from phthisis pulmonalis.

SWITZERLAND.—Week ended May 27, 1893. Reports from 15 cities of Switzerland, having an aggregate population of 503,503, show a total of 292 deaths, including phthisis pulmonalis, 42; enteric fever, 1; scarlet fever, 1; diphtheria and croup, 9; measles, 5; whooping cough, 1; and smallpox, 1.

Week ended June 3, 1893. Total deaths, 256, including phthisis pulmonalis, 32; scarlet fever, 3; diphtheria and croup, 19; measles, 5; and whooping cough, 1.

Lucerne.—Month of May, 1893. Population, 22,000. Total deaths, 41, including scarlet fever, 2, and diphtheria, 1.

Cholera notes.

[Translated in the Bureau from the *Veröffentlichungen des Kaiserlichen Gesundheitsamtes*, Berlin, June 7, 1893, and the *Deutsche Medicinische Wochenschrift*, June 15, 1893.]

FRANCE.—The *Lancet* states that 40 choleraic cases and 23 deaths from cholera occurred in the department of Morbihan during the last two weeks in May. According to the same authority there have been no choleraic deaths in La Vendée or the department of Finistère since May 12. Fatal cases of cholera have been recently observed at Montpellier and Nimes. In Cette 5 deaths from cholera occurred June 7-8. Cholera has made its appearance in Alais, and the Spanish consul at Marseilles reports 14 cases from May 22 to June 1. Suspicious cases are reported from Macon in the department of Seine et Loire.

RUSSIA.—Three cholera cases and 2 choleraic deaths are reported from the government of Saratow, May 13-19. The epidemic is nearly extinct in the governments of Orel and Ufa. One choleraic death is reported from Jelissowetpol May 19.

EAST INDIES—Calcutta.—From April 23 to 29, 27 choleraic deaths were reported.

MORTALITY TABLE, FOREIGN CITIES.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—						
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.
Acapulco.....	June 7.....	4,000	5							
Acapulco.....	June 14.....	4,000	5							
Aix-la-Chapelle.....	June 3.....	107,612	71						2	
Amherstburg.....	June 10.....	2,300	1							
Amherstburg.....	June 17.....	2,300	1							
Amsterdam.....	June 10.....	440,480	170				1		2	1
Antigua.....	June 3.....	16,664	15							
Basle.....	June 3.....	78,000	28							
Belfast.....	June 10.....	265,123	104				1	1	2	9
Belleville.....	June 17.....	10,200	4				2	2		
Birmingham.....	June 10.....	487,897	166				1	2		
Bremen.....	June 3.....	127,700	42					3		
Bristol.....	June 10.....	225,146	63				1			3
Brunswick.....	June 3.....	109,000	29							
Brussels.....	June 3.....	482,158	224				1	2		
Buda-Pesth.....	June 4.....	520,000	28				1		14	8
Cairo.....	May 11.....	1,250,000	935				3	18		27
Calcutta.....	May 6.....	681,560	335	22			1			6
Calcutta.....	May 13.....	681,560	291	21			1		1	3
Cardiff.....	June 10.....	142,346	37						3	3
Cartagena.....	June 7.....	25,000	9							
Catania.....	June 4.....	111,000	64							
Catania.....	June 11.....	111,000	57				1	4	1	1
Chatham.....	June 17.....	10,000	2							
Chemnitz.....	June 3.....	144,360	87				1		1	1
Chihuahua.....	June 17.....	29,500	19				1	1		
Christiania.....	June 10.....	161,151	43					1		
Cienfuegos.....	June 17.....	20,000	21	3						
Cologne.....	June 3.....	300,064	151					1	13	1
Colon.....	June 10.....	3,500	7							
Copenhagen.....	June 3.....	334,000		5				2	1	
Crefeld.....	June 10.....	108,000	62						2	
Curacao.....	June 3.....	27,493	7							
Curacao.....	June 10.....	27,493	6							
Demerara.....	May 10.....	53,176	55							
Demerara.....	May 27.....	53,176	49							
Denia.....	June 10.....	14,000	6							
Dresden.....	June 3.....	305,140	130					4	8	4
Dunkirk.....	June 12.....	140,000	32				2	2	2	
Edinburgh.....	June 10.....	267,762	93					1	4	3
Florence.....	June 12.....	186,015	88				2	2		
Flushing.....	June 10.....	15,000	7							
Frankfort-on-the-Main.....	June 10.....	185,000	67						6	1
Friburg.....	June 10.....	50,000	21							
Funchal.....	May 27.....	140,000	11				1			
Funchal.....	June 3.....	140,000	22				2	1		
Fürth.....	June 3.....	45,000	20					2	1	
Genoa.....	June 10.....	181,909	78						3	
Ghent.....	June 10.....	153,290	90						1	10
Gibraltar.....	June 11.....	20,755	8							
Gibraltar.....	June 4.....	20,755	5							
Girgenti.....	May 27.....	23,847	8							
Girgenti.....	June 3.....	23,847	9							
Glasgow.....	June 3.....	67,883	282		1	2	5			
Glasgow.....	June 10.....	677,883	292				5	3	33	19
Goderich.....	June 23.....	3,954	1							
Gothenburg.....	May 27.....	105,800	30					1		
Gothenburg.....	June 3.....	105,800	34					1		
Guadeloupe.....	May 21.....	18,000	14							
Guadeloupe.....	May 28.....	18,000	9							
Guelph.....	June 10.....	10,539	1							
Guelph.....	June 17.....	10,539	3							
Guelph.....	June 24.....	10,539	3							
Halifax.....	June 17.....	38,700	3						3	
Hamburg.....	June 3.....	620,000	220						6	
Hanover.....	June 3.....	191,400	61						6	
Havana.....	June 15.....	200,448	136	17			4		1	
Havre.....	June 3.....	116,369	56				1			1
Hiogo.....	May 20.....	148,118	44		2		6			
Huddersfield.....	June 10.....	97,552	21						3	
Kanagawa.....	May 22.....	126,685						1		
Kanagawa.....	May 29.....	126,685						1		

MORTALITY TABLE, FOREIGN CITIES—Continued.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—							
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Measles.
Kehl	May 14	129,556	78					1	1	12	
Kehl	May 21	129,556	106					2	2	7	
Kehl	May 28	129,556	72					5	1	4	
Kehl	June 4	129,556	92					4	5	1	
Kingston, Canada	June 23	19,264	3								
Konigsberg	June 10	161,520									
La Guayra	June 3	15,000	9					1			
La Guayra	June 10	15,000	7								
Leeds	June 10	382,094	147							2	6
Leith	June 10	70,972	24					1	2	1	4
Leghorn	June 11	103,265	25								
Leige	June 10	155,898	60					12			
Liverpool	June 10	517,980	242					1	3	16	7
London, Canada	June 17	19,746	9								
London, England	May 27	5,849,104	1,800		18	2	7	35	55	41	47
London, England	June 3	5,849,104	1,809		10		7	34	63	36	37
London, England	June 10	5,849,104	1,856		10			35	55	41	37
Lyons	June 3	438,000	202					1	4	3	
Madrid	May 30	482,816	273					6	4		
Madrid	June 6	482,816	271				1	5		3	15
Magdeburg	June 3	215,255	71						3	5	
Malaga	May 31	130,000	130					11	2	3	
Manchester	June 10	515,567	202		2		12	1	3	6	
Manheim	June 10	80,000	38						1		
Macaibo	June 3	40,000	27							1	
Maracaibo	June 10	40,000	26								
Marsala	May 27	40,131	13								
Marsala	June 3	40,131	12								
Matamoras	June 15	8,000	4								
Mayence	June 3	72,281	29						1	3	
Mayence	June 10	72,281	23						2		
Merida	June 5	46,300	39								
Merida	June 12	46,300	41							2	
Montreal	May 6	231,560	117					2	1	3	4
Montreal	May 13	231,560	103					1	1	1	
Montreal	May 27	231,560	121					2	8		3
Montreal	June 3	231,560	92					1	5		
Montreal	June 10	231,560	104					1	2	2	2
Moscow	May 27	800,000	478		4	4	4	13	16	2	1
Moscow	June 3	800,000	478		2	8	4	5	18	6	2
Munich	June 3	380,000	192					1	1	2	
Newcastle-upon-Tyne	June 10	197,026	67						6		1
Nuremberg	May 27	153,015	72					1	3		1
Palermo	May 27	250,000	133					6			
Palermo	June 3	250,000	117								
Paris	June 10	2,424,705	926		6	1	5	8	31	32	7
Pernambuco	May 21	200,000	134	5	4	7				2	
Pernambuco	May 28	200,000	125	6	10	10				1	1
Pernambuco	June 4	200,000	122	8	5	7					
Piedras Negras	June 19	10,000	4								
Plymouth	June 10	86,772	37							1	1
Port au Prince	May 7	40,000	18								
Port au Prince	May 14	40,000	19								
Port au Prince	May 21	40,000	21								
Port au Prince	May 28	40,000	15								
Port au Prince	June 4	40,000	21								
Port au Prince	June 11	40,000	25								
Port Hope	June 24	5,042	1								
Port Sarnia	June 17	6,600	1								
Prague	June 10	182,315	15					1	2	4	8
Puerto Cabello	June 3	10,500	5								
Puerto Cabello	June 10	10,500	7								
Rheims	June 3	110,000	59								
Rheims	June 10	110,000	62								
Rotterdam	June 10	222,230	112						1	2	
Sagua la Grande	June 10	18,109	10								
Sagua la Grande	June 17	18,109	11								
St. Georges	June 5	15,013	1								
St. Johns	June 17	4,772	3								
St. Pierre	June 4	35,700	10								
St. Stephen	June 24	2,700	1								
St. Thomas, W. I.	June 2		25								
Sheffield	June 10	324,206	107					4	2	3	1

MORTALITY TABLE, FOREIGN CITIES—Continued.

Cities.	Week ended.	Estimated population.	Total deaths from all causes.	Deaths from—							
				Cholera.	Yellow fever.	Smallpox.	Typhus fever.	Enteric fever.	Scarlet fever.	Diphtheria.	Mesasles.
Schiedam	June 10.....	25,533	10								
Sonneberg	June 11.....	12,000	8							2	
Southampton	June 10.....	65,621	22					1			
Stettin	June 3.....	120,000	56								1
Stockholm	June 10.....	249,246	96						5	4	
Stuttgart	June 10.....	139,659	64							8	
Sunderland	June 10.....	134,394	60								1
Tampico	June 18.....	7,000	14								1
Tegucigalpa	June 3.....	12,000	6			2					
Trieste	June 3.....	158,314	78		6			3	5		
Tuxpan	June 3.....	10,280	5								
Venice	June 3.....	163,601	78						1	2	
Vera Cruz	June 16.....	26,500	60		7	2					
Victoria	June 10.....	16,841	8								
Victoria	June 17.....	16,841	6								
Vienna	May 27.....	1,435,931	844		3		1	5	36	58	2
Vienna	June 3.....	1,435,931	776		1		4	9	36	64	2
Warsaw	May 27.....	500,931	185			11	3	2	1	5	
Warsaw	June 3.....	500,931	216		7	4	2	2	8		2
Zurich	June 3.....	104,406	53						4		

* One death from plague during week ended June 3, 1893.

By authority of the Secretary of the Treasury:

WALTER WYMAN,
Supervising Surgeon-General Marine-Hospital Service.